

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Scott LaDell Vance)	
)	
Application No.: 10/709,345)	Group Art Unit: 2618
)	
Filed: April 29, 2004)	Examiner: Wen Wu Huang
)	
Title: DEVICE AND METHOD FOR)	
<u>HANDS-FREE PUSH-TO-TALK FUNCTIONALITY</u>)	

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

REMARKS IN SUPPORT OF PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicant submits that the current and preceding office actions issued by the Examiner in the present application contain clear errors in the Examiner's rejections as well as omissions of one or more essential elements needed for a *prima facie* rejection under 35 U.S.C. § 103.

Claims 1, 12-14, 22, 26, 31, 33, 36, 37, and 41 were rejected under 35 U.S.C. §103(a) as being unpatentable over Holmes (U.S. Patent 3,586,798; hereinafter "Holmes") in view of Gardos (U.S. Publication No. 2004/0243416; hereinafter "Gardos"). Applicant first submits these references are non-combinable. Holmes discloses a conventional switch disposed on a user's chest and a control lever located below a user's chin so that when the user lowers his chin, the control arm is pushed toward the user's chest closing the contacts in the switch body, as shown in FIG. 2 of Holmes. In contrast, Gardos discloses a "speech-recognition system" that employs an accelerometer to determine head gestures, such as a nod or shake. See Gardos, paragraph [0017]. As described in paragraph [0026] of Gardos, the purpose of the invention of Gardos is:

"to increase the accuracy of an acoustic speech recognition program 160 running on a computer 108. For example, certain values of the head-nod parameter indicate that the spoken word is more likely to have a positive connotation, as in "yes," "correct," "okay," "good," while certain values of the head-shake parameter indicate that the spoken word is more likely to have a negative connotation, as in "no," "wrong," "bad." As another example, if the speech recognition program 160 recognizes a spoken word that can be interpreted as either "year" or "yeah", and the head action parameter indicates there was a head-nod, then there is a higher probability that the spoken word is "yeah."

Additionally, Gardos in paragraphs [0033] - [0035], recites:

"[0033] ...The head orientation and motion sensor 186 generated head action parameters based on signals from accelerometers contained in sensor 186. The lip position parameters and head action parameters are transmitted wirelessly to a computer 194.
[0034] ...Computer 194 combines the encoded speech signals and the lip position and head action parameters, and transmits the combined signal to a computer 196 at a remote location through network 192.

[0035] ... Computer 196 also synthesizes an animated talking head 200 on a display 202. The orientation and motion of the talking head 200 are determined by the head action parameters. The lip positions of the talking head 200 are determined by the lip position parameters.”

Accordingly, Gardos teaches sensing the head action, encoding and transmitting the head action parameters to a computer at a remote location to control a talking head on a display as clearly described by Gardos and illustrated in Figure 4. A person of ordinary skill in the art would not be motivated to combine the talking head control system for improved speech recognition of Gardos with the body-activated switch of Holmes.

Further, Holmes clearly teaches moving the user’s chin to operate a switch residing on the user’s chest which does not move. Replacing the switch of Holmes with the accelerometer of Gardos would clearly render the Holmes’ invention inoperative. If the control switch of Holmes is replaced by the accelerometer of Gardos, the accelerometer located on the user’s chest would not detect head movement of a user to operate the switch, as required by Holmes in FIG. 2 and column 2, lines 67-75. Thus, Holmes would no longer operate as intended rendering these references non-combinable. For all of these reasons, Applicant respectfully submits that one skilled in the art would not have been motivated to combine the speech recognition system of Gardos with the chin-operated switch device of Holmes.

On Page 4 of the Final Office Action, the Examiner states “one of ordinary skill . . would have replaced the tilt sensor of Holmes with the tilt sensor of Gardos for the push-to-talk device of Holmes. . . .” However, on page 19 in the same Final Office Action the Examiner admits that:

“one of ordinary skill in the art . . . would **not** place the motion sensor of Gardos at the chest of the user of Holmes. . . Placing the motion sensor of Gardos on the chest of the user of Holmes is **nonsensical and unreasonable.**” (emphasis added, Final Office Action dated 7/25/08, page 19, 2nd paragraph)

The Examiner has simply not shown how Holmes and Gardos can be combined. Applicant is at a complete loss as to what the alleged resulting combination of Holmes and Gardos would be. Applicant submits that a *prima facie* case of obviousness has simply not been made. Applicant further submits that the combination of Holmes and Gardos is based on the use of impermissible hindsight and is only obvious if applicant’s disclosure is used as a template for the combination.

Applicant also submits that, even if Holmes and Gardos could be properly combined, the resulting combination still would not teach all of the features of Applicant’s claims. Claim 1 recites:

“a hands-free push-to-talk sensor or switch including at least one of an air pressure sensitive switch and a tilt sensor for sensing a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angle from a zero or normalized angle. . .

means to control operation of a communications device in response to signals from the push-to-talk sensor or switch, wherein the push-to-talk sensor or switch comprises the tilt sensor, wherein a transmit mode of the communications

device is activated in response to the tilt sensor being tilted more than the predetermined angle from the zero or normalized angle of the direction of force due to gravity for a predetermined time duration.”

In rejecting claim 1, the Office Action cited column 2, lines 67-75 of Holmes, which recites:

“As viewed in FIG. 2 the switch control arm 26 is shown in broken lines moved to a position whereat the button 21 has been depressed to close the contacts in switch body 20 energizing the microphone 16. Also in broken lines is the inclined head position causing such closure. Further control arm movement resulting from jaw movement during speaking is shown in dashed lines. Such further movement by control arm 26 is permitted by the resilient nature of the control arm material and the hinged mounting thereof at 23.”

Accordingly, Holmes is only discussing that a user’s head pushes down on the control arm to depress the pushbutton and does not disclose a tilt sensor being tilted more than the predetermined angle from the zero or normalized angle of the direction of force due to gravity “for a predetermined time duration,” as recited in claim 1. In fact, nowhere does Holmes even mention any predetermined time duration.

Regarding the rejection of claims 12-14, these claims recite additional features which further patentably distinguish over Holmes in view of Gardos. For example, claim 14 recites the push-to-talk device of claim 1 further comprises “a headset, wherein the push-to-talk sensor or switch is mounted to the headset.” In rejecting claim 14, the Office Action recited:

“... the combination of Holmes and Gardos also teaches the device of claim 1, further comprising a headset (see Gardos, fig. 1, headset 100), wherein the push-to-talk sensor or switch is mounted to the headset (see Gardos, fig. 2, sensor 112).”

Accordingly, the Office Action is somehow suggesting that the control switch of Holmes (the Office Action previously cited the control switch of Holmes as the “push-to-talk” sensor) is mounted to the headset of Gardos. Clearly, this is nonsensical and not taught in Gardos. One skilled in the art would not mount the control switch of Holmes to the headset of Gardos. Additionally, neither Holmes nor Gardos teaches of a “push-to-talk sensor or switch” or mounting a “push-to-talk sensor or switch” to a headset. Applicant respectfully submits that in no way does the combination of Holmes and Gardos teach of a “push-to-talk sensor or switch” being mounted to a headset. Accordingly, Applicant respectfully submits that claim 14 is patentably distinguishable over Holmes in view of Gardos.

Turning now to the rejection of independent claims 22, 31 and 37 under 35 U.S.C. §103(a) as being unpatentable over Holmes in view of Gardos, these claims recite features similar to independent claim 1. Therefore, these claims are respectfully submitted to be patentably distinguishable over Holmes in view of Gardos for the same reasons as discussed with respect to claim 1.

Claims 4, 5, 27 and 42 were rejected under 35 U.S.C. §103(a) as being unpatentable over Holmes in view of Gardos and further in view of U.S. Patent No. 5,101,504 to Lenz (hereinafter “Lenz”). These claims recite features which patentably distinguish over the cited documents. For example, claim 4 recites:

“means for maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle after a selected time delay.”

In rejecting claim 4, the Office Action recited column 3, lines 31-35 and lines 40-43 of Lenz, which recite:

“In the most common two-way radios where the switch must be depressed as long as the person is talking and transmitting, the wearer can comfortably keep his shoulder raised for an extended period such as a minute while talking, all without affecting use of his hands and head.

. . . In order to indicate to the wearer when he has operated the switch, the switch is constructed so that it creates an easily heard "click" noise both when it is closed and when it is opened again.”

Accordingly, Lenz merely discloses a switch that is constructed so that it creates a “click” noise. The Final Office Action on page 21 asserted that the time to hear the “click” noise is a selected time delay. Applicant disagrees. As clearly taught by Lenz, the switch is constructed to create the “easily heard click noise” so the operator knows when the switch is closed and opened. The “click” in Lenz occurs only after the switch is already in transmit mode. This feature of Lenz does not teach or suggest a time delay as provided by claim 4.

Further, neither Lenz, nor Holmes and Gardos show any recognition for the problem solved by the feature of the present invention as provided in claim 4, namely maintaining the communications device in the transmit mode while the user is speaking (voice signal) and during brief interruptions of the user speaking less than the selected time delay unless the sensor is being tilted more than the predetermined angle after the selected time delay, as provided by claim 4. Lenz clearly teaches that the user has to keep his shoulder raised while talking as indicated in the recitation above. Neither Lenz nor Holmes and Gardos teach or suggest a “tilt sensor being tilted more than the predetermined angle after a selected time delay.”

Claims 9-11, 28-30, 35 and 43-45 were rejected under 35 U.S.C. §103(a) as being unpatentable over Holmes in view of Gardos, further in view of Lenz, yet further in view of U.S. Patent No. 4,426,733 to Brenig (hereinafter “Brenig”), and still yet further in view of U.S. Patent No. 6,594,632 to White (hereinafter “White”). These claims recite features which patentably distinguish over the cited patents. For example, claim 9 recites:

“. . . the push-to-talk sensor or switch comprises the air pressure sensitive switch, wherein a transmit mode of the communications device is activated in response to the user blowing on the air pressure sensitive switch with an air pressure greater than a preset air pressure”

In rejecting claim 9, the Office Action cited column 2, lines 18-19 of Brenig, which recites “a microphone or other transducer is provided for receiving audible verbal phrases spoken by a human operator.”

Accordingly, Brenig discloses a microphone in a speech recognition system. Brenig does not teach or suggest a pressure sensitive switch nor does Brenig teach or suggest that a transmit mode of the

communications device is activated in response to the user blowing on the air pressure sensitive switch with an air pressure greater than a preset air pressure as provided by the embodiment of the present invention recited in claim 9.

Additionally, in rejecting claim 9, the Office Action cited White. However, White also only teaches speech recognition and does not teach or suggest a user blowing on an air pressure sensitive switch.

Claim 10 recites:

“. . . means for maintaining the communications device in a transmit mode in response to at least one of detecting a voice signal or the air pressure greater than the preset air pressure caused by the user blowing on the air pressure sensitive switch after a selected time delay.”

In rejecting claim 10, the Office Action cited Brenig. However, as stated above, Brenig only discusses speech recognition and does not disclose a means for maintaining the communications device in a transmit mode in response to at least one of detecting a voice signal or the air pressure greater than the preset air pressure caused by the user blowing on the air pressure sensitive switch after a selected time delay.

Further, Applicant respectfully submits that Brenig and White add nothing to the teachings of Holmes and Gardos so as to render independent claims 1, 22, 31 and 37 unpatentable. For all the reasons discussed above, Applicant respectfully submits that claims 9-11, 28-30, 35 and 43-45 are patentably distinguishable over Holmes, Gardos, Lenz, Brenig and White, whether considered individually or combined.

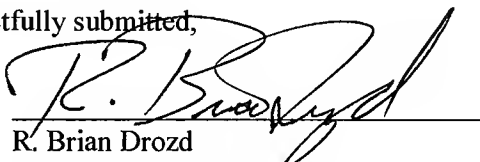
All dependent claims are dependent from one of independent claims 1, 22, 31, and 37 addressed above and are allowable for at least the same reasons that independent claims 1, 22, 31 and 37 are allowable.

As the Examiner's rejections have been shown to be in clear error and lack essential elements of a *prima facie* obviousness rejection, Applicants respectfully request that the claims of the present application be allowed to issue.

Date: 10/27/08

Respectfully submitted,

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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) U04.0033.84									
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature _____ Typed or printed name _____	Application Number 10/709,345	Filed 04/29/2004									
	First Named Inventor Scott LaDell Vance										
	Art Unit 2618	Examiner Wen Wu Huang									
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <table style="width: 100%; border: none;"><tr><td style="width: 50%; vertical-align: top; padding: 5px;"><input checked="" type="checkbox"/> applicant/inventor.</td><td style="width: 50%; vertical-align: top; padding: 5px;">/R. Brian Drozd/ _____ Signature</td></tr><tr><td style="vertical-align: top; padding: 5px;"><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</td><td style="vertical-align: top; padding: 5px;">R. Brian Drozd _____ Typed or printed name</td></tr><tr><td style="vertical-align: top; padding: 5px;"><input checked="" type="checkbox"/> attorney or agent of record. Registration number 55,130</td><td style="vertical-align: top; padding: 5px;">919 286 8140 _____ Telephone number</td></tr><tr><td style="vertical-align: top; padding: 5px;"><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</td><td style="vertical-align: top; padding: 5px;">10/27/2008 _____ Date</td></tr></table> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>				<input checked="" type="checkbox"/> applicant/inventor.	/R. Brian Drozd/ _____ Signature	<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)	R. Brian Drozd _____ Typed or printed name	<input checked="" type="checkbox"/> attorney or agent of record. Registration number 55,130	919 286 8140 _____ Telephone number	<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____	10/27/2008 _____ Date
<input checked="" type="checkbox"/> applicant/inventor.	/R. Brian Drozd/ _____ Signature										
<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)	R. Brian Drozd _____ Typed or printed name										
<input checked="" type="checkbox"/> attorney or agent of record. Registration number 55,130	919 286 8140 _____ Telephone number										
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